

# The Potato Sustainability Initiative:

## Promoting, tracking, and reporting progress

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**Improving sustainability**, leaving the world in a better place than we found it, is becoming an expectation in the marketplace. Consumers are choosing products based on what corporations are doing to improve health and the environment. Many corporations have executive-level positions in sustainability and provide detailed annual sustainability reports to shareholders and the public.

Food companies are among the leaders, including those participating in the new industry-wide Potato Sustainability Initiative (PSI). This effort brings together potato growers, processors, distributors, and retailers under a single, comprehensive program to improve sustainability in the potato supply chain in the U.S. and Canada.

### Getting started

The Initiative grew out of project started in 2010 to develop an integrated pest management (IPM) practice survey for potato growers supplying McDonald's. The goal was to promote, track, and report adoption of IPM and other best practices that help reduce pesticide use and risks. A group including growers, three potato processors— ConAgra Foods Lamb Weston, McCain's, and Simplot—McDonald's, the National Potato Council, the Canadian Horticulture Council, and the IPM Institute assembled in Chicago to develop an action plan and timetable. The group contracted with FoodLogiQ, a technology company based in North Carolina, to put the survey online.

Rich Burres, Sustainable Ag Manager for ConAgra Lamb Weston, reports, "With this project, we were able to expand upon and improve earlier work led by the National Potato Council more than a dozen years ago to survey and report on grower IPM practices. The online survey format allowed us to reach all of our growers and summarize responses efficiently."

Over four growing seasons, the group worked to develop, implement, and improve an online practice survey with more

than 400 potato growers. Each grower responded to questions addressing a variety of best practices including crop rotation to help manage Colorado potato beetle and other pests, weather monitoring for forecasting diseases, and the need for fungicide applications and scouting and trapping for insect pests.

Questions and answers were distributed among four levels—Basic, Steward, Expert, and Master—representing the group's assessment of performance. **Basic**-level responses included compliance with laws regarding pesticide use as well as farm worker and environmental protection. The **Steward** level included proven practices that can be implemented on most farms and by most growers, such as use of scouting and thresholds for common pests. The **Expert** level included advanced practices such as monitoring populations of beneficial insects and taking advantage of the pest control they provide on at least a portion of potato crop acres. For **Master**-level credit, growers had to respond in the affirmative to questions addressing practices designed to improve soil health, water quality, and conservation.

Growers could earn advanced credit by using tools to help identify reduced-risk pesticide options. Tools include the Environmental Impact Quotient,<sup>1</sup> which provides ratings for more than 120 pesticides; the Windows Pesticide Screening Tool,<sup>2</sup> developed by USDA Natural Resources Conservation Service, which evaluates pesticide impact on soil, groundwater, and surface water, and the Pesticide Risk Mitigation Engine,<sup>3</sup> which estimates pesticide risks and mitigation options based on soil type, application rate and method, and other factors.

Each year, results were reported on the National Potato Council website. Trends showed a gradual, steady improve-

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<sup>1</sup> See [www.nysipm.cornell.edu/publications/eiq/](http://www.nysipm.cornell.edu/publications/eiq/)

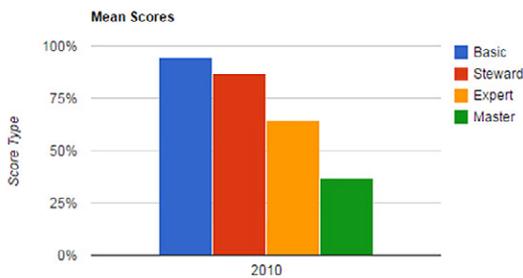
<sup>2</sup> See [www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/](http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/)

<sup>3</sup> See [www.ipmprime.com](http://www.ipmprime.com)

<sup>4</sup> See <http://nationalpotatocouncil.org/events-and-programs/environmental-stewardship/ipm-survey-and-information>

## Annual IPM Survey Results

Year	2010	IPM Level	Score
Country	All	Basic	94.79%
		Steward	86.94%
		Expert	64.51%
		Master	36.69%
		Index	2.83
		# Farms	244



ment in scores (Fig. 1). Participation has increased from 244 in 2010 to 449 growers in 2013. In 2013, 97.7% of surveyed growers achieved at least a basic level of IPM stewardship, with 48.0% at the Master level of IPM practitioners. The annual overall rating index has steadily increased over four years, starting at 2.83 in 2010 and improving to 3.11 in 2013. Survey results can be found on the National Potato Council website.<sup>4</sup>

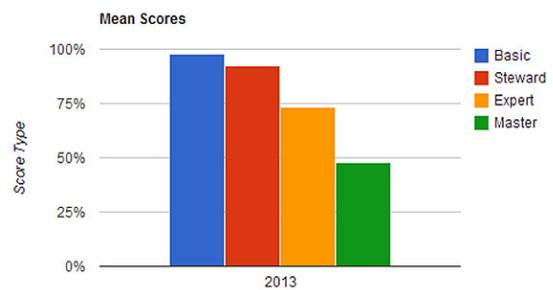
## Expanding beyond IPM

In 2013, McDonald's asked the group to broaden the survey to include additional practices important to sustainability including waste reduction, air quality, energy and water conservation, and greenhouse gas reduction. In addition, Basic America Foods, Cavendish, Heinz, Sysco, and the Washington State Potato Commission are now represented on the team. As Monte Anderson, Agricultural Sustainability Manager at J.R. Simplot describes, "This industry-wide initiative has brought together our largest Potato Quick Service Restaurant and Foodservice customers along with raw potato suppliers and major potato processors for a single program that covers all aspects of agriculture sustainability."

The group also decided to incorporate metrics, or measures that track outcomes that can result from improved practices. For example, in 2015, growers will report worker safety performance based on the number of incidents divided by total number of hours worked. Metrics have also been developed for fertilizer and irrigation water use efficiency and greenhouse gas and pesticide risk reduction. "Where possible, we want to measure and

## Annual IPM Survey Results

Year	2013	IPM Level	Score
Country	All	Basic	97.70%
		Steward	92.34%
		Expert	73.25%
		Master	48.03%
		Index	3.11
		# Farms	449



**Fig. 1.** IPM survey results, 2010 (left) and 2013 (right). The number of growers participating has nearly doubled. The overall performance index has increased from 2.83 to 3.11 over the same time period. In 2014, more than 500 growers participated in the new, expanded sustainability survey.

report outcomes," says Eric Ritchie, Agriculture Manager, North America, Food Safety, Sustainability, and Policy for McCain's Foods. "Best practices are important to promote and measure; outcome metrics help us track how our practices are performing in delivering the benefits we are aiming for."

In 2014, 516 potato growers across the U.S. and Canada completed the new survey. The ultimate goal is to engage all potato production to avoid duplication of effort and reduce the burden on producers and processors. As Anderson put it, "The common goal of having one comprehensive agriculture sustainability program accepted across the marketplace is a win for all."

One of the largest impacts of PSI is its streamlining of sustainability programs. Ed Schneider, Schneider Farms in Pasco, Washington says, "Growers appreciate the need for communicating the good things we are doing to consumers. This effort helps us by allowing us to report to multiple buyers at one time."

Next up for the team is developing a verification program to formalize quality control and assurance, both at the grower and processor level. To learn more, contact Patrick Shannon-Hughes at [pshannon-hughes@ipminstitute.org](mailto:pshannon-hughes@ipminstitute.org). &